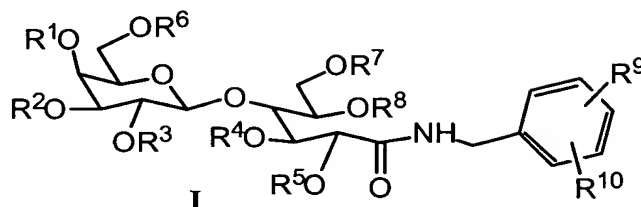


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WHAT IS CLAIMED IS:

1. A compound of formula I having the structure

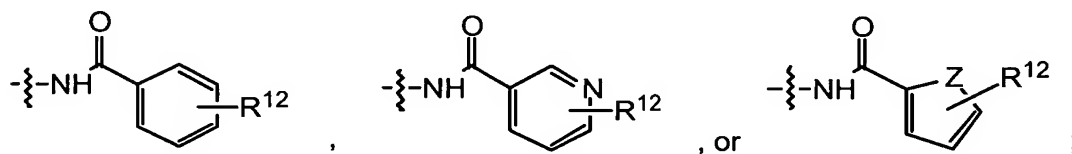


wherein

R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 are each, independently, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl, or $-SO_3H$;

- 10 R^9 is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, or alkoxy of 1-6 carbon atoms;

R^{10} is hydrogen, $-NO_2$, $-NHR^{11}$, $-NHR^{13}$, $-N(R^{13})_2$, $-NCH_3R^{13}$, $-NHCO_2$ alkyl, wherein the alkyl moiety contains 1-6 carbon atoms, alkylsulfonamide of 1 to 4 carbon atoms,



Z is O or S;

R^{11} is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of R^{10} , wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;

R^{12} is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, or benzoyl;

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R¹³ is hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl;

or a pharmaceutically acceptable salt thereof.

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2. The compound according to claim 1, wherein

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ are each, independently, acyl of 2-7 carbon atoms or -SO₃H;

Z is O;

10 or a pharmaceutically acceptable salt thereof.

3. The compound according to claim 2, wherein

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ are each, independently, acetyl or -SO₃H;

R¹⁰ is hydrogen, -NO₂, -NHR¹³, -N(R¹³)₂,

15 R¹³ is hydrogen, or acyl of 2-7 carbon atoms;

or a pharmaceutically acceptable salt thereof.

4. The compound of claim 1 which is:

20 a) *N*-Benzyl-octa-*O*-acetyl-lactobionamide or a pharmaceutically acceptable salt thereof;

b) *N*-Benzyl-octa-*O*-sulfo-lactobionamide or a pharmaceutically acceptable salt thereof;

25 c) *N*-(4-Nitro-benzyl)-octa-*O*-acetyl-lactobionamide or a pharmaceutically acceptable salt thereof;

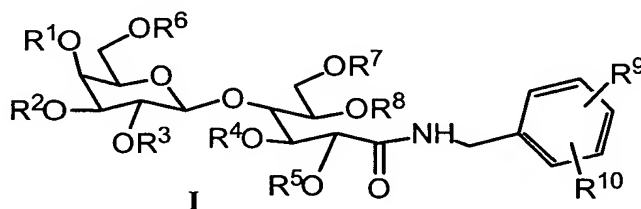
d) *N*-(4-Amino-benzyl)-octa-*O*-acetyl-lactobionamide or a pharmaceutically acceptable salt thereof;

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- e) *N*-(3-Amino-benzyl)-octa-*O*-acetyl-lactobionamide or a pharmaceutically acceptable salt thereof;
- f) *N*-[3-(Acetylamino)-benzyl]-octa-*O*-acetyl-lactobionamide or a pharmaceutically acceptable salt thereof; or
- g) *N*-[3-(Acetylamino)-benzyl]-octa-*O*-sulfo-lactobionamide or a pharmaceutically acceptable salt thereof.

5. A method of treating or inhibiting hyperproliferative vascular disorders in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of formula I having the structure

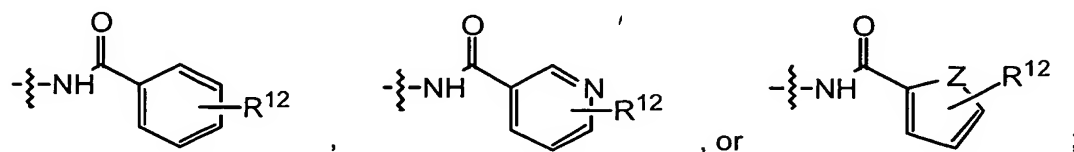


wherein

R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 are each, independently, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl, or $-SO_3H$;

R^9 is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, or alkoxy of 1-6 carbon atoms;

R^{10} is hydrogen, $-NO_2$, $-NHR^{11}$, $-NHR^{13}$, $-N(R^{13})_2$, $-NCH_3R^{13}$, $-NHCO_2$ alkyl, wherein the alkyl moiety contains 1-6 carbon atoms, alkylsulfonamide of 1 to 4 carbon atoms,



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Z is O or S;

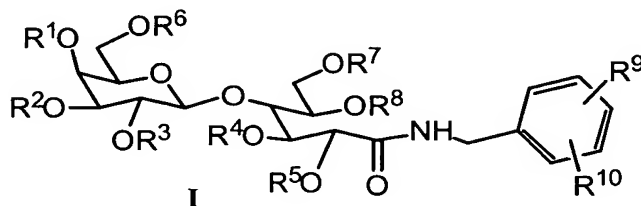
R¹¹ is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of R¹⁰, wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;

R¹² is hydrogen, CN, NO₂, halo, CF₃, alkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, or benzoyl;

R¹³ is hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl;

or a pharmaceutically acceptable salt thereof.

6. A method of treating or inhibiting restenosis in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of formula I having the structure



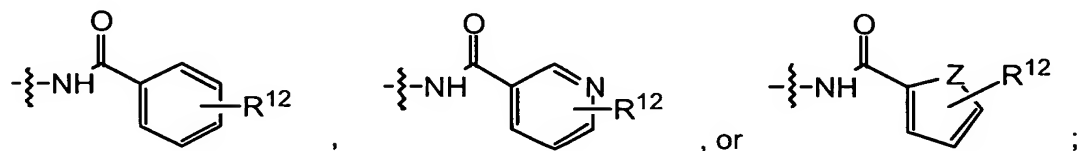
wherein

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, and R⁸ are each, independently, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl, or -SO₃H;

R⁹ is hydrogen, CN, NO₂, halo, CF₃, alkyl of 1-6 carbon atoms, or alkoxy of 1-6 carbon atoms;

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R¹⁰ is hydrogen, -NO₂, -NHR¹¹, -NHR¹³, -N(R¹³)₂, -NCH₃R¹³, -NHCO₂alkyl, wherein the alkyl moiety contains 1-6 carbon atoms, alkylsulfonamide of 1 to 4 carbon atoms,



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Z is O or S;

R¹¹ is an α-amino acid in which the α carboxyl group forms an amide with the nitrogen of R¹⁰, wherein if said amino acid is glutamic acid or aspartic acid, the non-α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;

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R¹² is hydrogen, CN, NO₂, halo, CF₃, alkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, or benzoyl;

15

R¹³ is hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl;

or a pharmaceutically acceptable salt thereof.

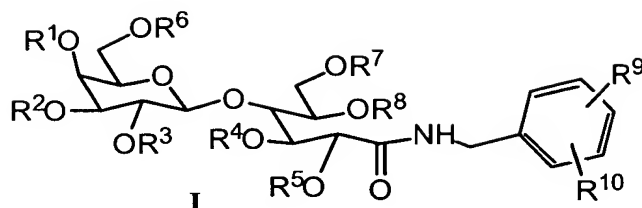
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7. The method according to claim 6, wherein the restenosis results from a vascular angioplasty procedure, vascular reconstructive surgery, or organ or tissue transplantation.

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8. A method of inhibiting angiogenesis in a malignant tumor, sarcoma, or neoplastic tissue in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of formula I having the structure

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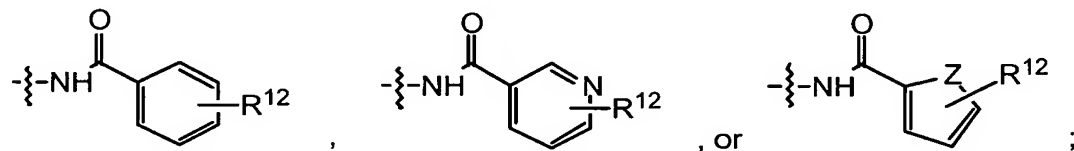


wherein

R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 are each, independently, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl, or $-SO_3H$;

R^9 is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, or alkoxy of 1-6 carbon atoms;

R^{10} is hydrogen, $-NO_2$, $-NHR^{11}$, $-NHR^{13}$, $-N(R^{13})_2$, $-NCH_3R^{13}$, $-NHCO_2$ alkyl, wherein the alkyl moiety contains 1-6 carbon atoms, alkylsulfonamide of 1 to 4 carbon atoms,



Z is O or S;

R^{11} is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of R^{10} , wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;

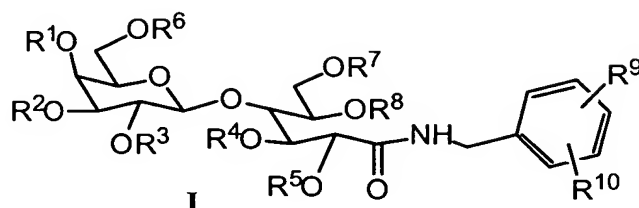
R^{12} is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, or benzoyl;

R^{13} is hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl;

or a pharmaceutically acceptable salt thereof.

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9. A pharmaceutical composition which comprises a compound of formula I having the structure

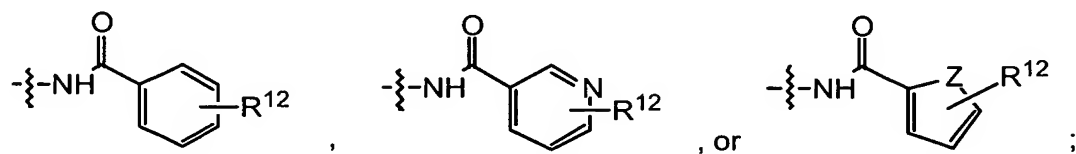


wherein

R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 are each, independently, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl, or $-SO_3H$;

10 R^9 is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, or alkoxy of 1-6 carbon atoms;

R^{10} is hydrogen, $-NO_2$, $-NHR^{11}$, $-NHR^{13}$, $-N(R^{13})_2$, $-NCH_3R^{13}$, $-NHCO_2$ alkyl, wherein the alkyl moiety contains 1-6 carbon atoms, alkylsulfonamide of 1 to 4 carbon atoms,



Z is O or S;

R^{11} is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of R^{10} , wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;

R^{12} is hydrogen, CN, NO_2 , halo, CF_3 , alkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, or benzoyl;

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R¹³ is hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl;

or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable salt thereof, and a pharmaceutical carrier.

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